## WHAT IS CLAIMED IS:

Claim 1: A testing apparatus of a magnetic recording medium for conducting test on said magnetic recording medium through recording testing data onto said magnetic recording medium by means of a magnetic head and reproducing recorded testing data by means of said magnetic head, so as to perform a predetermined process on reproduced testing data, comprising:

plural conversion means for converting the reproduced testing data into digital values;

sampling clock control means for operating said plural conversion means, at a predetermined sampling frequency for each one of said plural converter means;

plural holding means for holding the digital values converted by said plural converter means; and

data processing means for conducting a calculation process in relation to a magnetic characteristic of said magnetic recording medium from digital values held by said plural holding means, thereby conducting the test on said magnetic recording medium.

Claim 2: A testing apparatus as claimed in claim 1, wherein said calculation process is a statistic calculation process or a frequency analysis calculation process, in which a peak value of said reproduced testing data or a threshold value time when exceeding or being below an arbitrary threshold value is measured with using the digital values, thereby to calculate an average value or a dispersion value or a deviation value or a cumulative frequency with respect to said peak value or said threshold value time.

Claim 3: A testing apparatus of a magnetic head for conducting test on said magnetic head through recording testing data onto a magnetic recording medium by means of said magnetic head and reproducing recorded testing data by means of said magnetic head, so as to perform a predetermined process on reproduced testing data, comprising:

plural conversion means for converting the reproduced testing data into digital values;

sampling clock control means for operating said plural conversion means, at a predetermined sampling frequency for each one of said plural converter means;

plural holding means for holding the digital values converted by said plural converter means; and

data processing means for conducting a calculation process in relation to a magnetic characteristic of said magnetic recording medium from digital values held by said plural holding means, thereby conducting the test of said magnetic head.

Claim 4: A testing apparatus as claimed in claim 3, wherein said calculation process is a statistic calculation process or a frequency analysis calculation process, in which a peak value of said reproduced testing data or a threshold value time when exceeding or being below an arbitrary threshold value is measured with using the digital values, thereby to calculate an average value or a dispersion value or a deviation value or a cumulative frequency value with respect to said peak value or said threshold value time.